

ABSTRACT

Patent a2

An object of the present invention is to provide a damper which has a simple structure and allowing the setting 5 of arbitrary torque with smooth reproducibility. The damper includes a shaft member 2 having wings 4a, 4b which are formed on the outer periphery of a shaft 3, a cylindrical casing 1 relative-rotatably incorporating the shaft member, and oil chambers A to D which are provided between the outer 10 periphery of the shaft member and the inner periphery of the casing. Protrusions are provided on the inner periphery of the casing so as to be slidable on the outer periphery of the shaft. Communicating paths 5a, 5b are passed through the shaft to make the communication between a pair of the 15 adjacent oil chambers out of all the oil chambers which are individually surrounded by the wings and the protrusions. At least one of openings of the communicating path is closed by the protrusion 8a, 8b of the casing within a relative-rotating range of the shaft member 2.

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SELECTED FIGURE FIG. 1